

REMARKS

By an Office Action dated September 29, 2003 in the file of the above-identified application the Examiner rejected the application on a variety of grounds. Based on this submission, reconsideration of the merits of this patent application are respectfully requested.

The first ground of rejection in the Office Action was to the specification because of the lack of a brief description of drawing Figure 3. It is believed that this informality has been corrected above, without the addition of any new matter to the specification.

The claims were first rejected under 35 U.S.C. §112, second paragraph, for indefiniteness. The Examiner asserted that the claims lack proper antecedent basis for certain words in the claims as filed. The applicants have addressed each of those instances, in the amendments to the claims made above, and it is believed that the claims are now definite as required by Section 112, second paragraph.

Lastly, the Examiner applied a rejection against the claims for unpatentability under 35 U.S.C. §103 in view of prior art references to McGall and Baker. The Examiner cited McGall for a teaching of testing and evaluating arrays during a photolithographic synthesis to identify variations and illumination intensity. The applicants are not contesting that assertion.

Secondly, the Examiner cited the reference to Baker as teaching a method for quality control over a photolithographic process. In the Baker method, a filter is placed between the light source and the target, the filter having varying degrees of light absorption to correct for non-uniformities in the photolithographic process. The Examiner also stated that Baker teaches a method for varying light intensity in which illumination time is reduced, citing Column 6, lines 47-67 of Baker. The applicants have read the citation to the Baker reference and do not believe that this is what Baker teaches. Baker teaches imposing a filter of varying degrees of light absorption between the light source and the target, but Baker does not teach anything about varying light's intensity by any changes made over time. Baker attenuates the light, but the attenuation is not time variable.

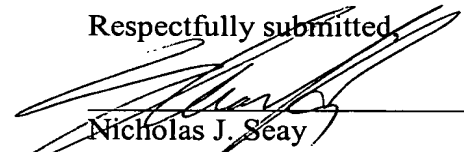
The applicants assert that the invention as recited in Claim 1, as now amended, and the newly presented Claim 9, is not made obvious by the combination of McGall and Baker. Note that the applicants here have found a way to achieve correction of illumination variation in a very elegant and simple manner. In the instrument of the applicants, micromirrors are used to direct light, at selected intervals, to synthesis areas where the oligomers are assembled. The correction of illumination intensity in different synthesis areas is achieved by varying the time during which each micromirror directs light to a particular synthesis area. In other words, to simply correct for areas which the illumination is too bright relative to other

areas, the micromirror is simply directed at the bright area for a lesser time than another micromirror is directed at other synthesis areas which are less brightly illuminated. This can be accomplished because the system of the present invention makes use of a micromirror array which is under computer control, and the flexibility this provides permits individually adjustable micromirrors to be controlled individually, something not contemplated in either of the McGall or the Baker references.

Accordingly, the invention as presently recited in the claims of this application specifically requires that the adjustment for non-uniformity is made by changing the illumination time in which a micromirror directs light to a particular synthesis position. This concept is neither disclosed nor suggested in either McGall or Baker. Accordingly, neither McGall nor Baker can make claims to this methodology obvious.

Based on the foregoing, the Examiner is respectfully requested to revisit the merits of this patent application. A separate petition for extension of time is submitted herewith so that this response will be considered as timely filed.

Respectfully submitted,



Nicholas J. Seay
Reg. No. 27,386
Attorney for Applicants
QUARLES & BRADY LLP
P.O. Box 2113
Madison, WI 53701

TEL 608/251-5000
FAX 608/251-9166

QBMAD\373649.1